

CLAIMS:

1-44 (Cancelled)

45. (New) A method for registering a pelvis of a subject in a lateral position, comprising:

    determining the position of at least a first point of the pelvis and a second point of the pelvis in a first plane parallel to a first cardinal plane of the pelvis;

    determining the position of at least a third point of the pelvis and a fourth point of the pelvis in a second plane parallel to a second cardinal plane of the pelvis, wherein the second plane is perpendicular to the first plane; and

    determining the position of a third cardinal plane of the pelvis, wherein the third cardinal plane is perpendicular to the first cardinal plane and second cardinal plane.

46. (New) The method of claim 45, wherein one of the first and second points or one of the third and fourth points is common to the first plane and the second plane.

47. (New) The method of claim 45, wherein the first cardinal plane is the pelvic frontal plane.

48. (New) The method of claim 45, wherein the second cardinal plane is the pelvic mid sagittal plane.

49. (New) The method of claim 45, wherein the third cardinal plane is the transverse pelvic plane.

50. (New) The method of claim 45, further comprising the step of determining the position of a fifth point of the pelvis in the first plane.

51. (New) The method of claim 50, further comprising the step of determining the position of a sixth point of the pelvis in the second plane.

52. (New) The method of claim 45, wherein the first plane is the first cardinal plane.

53. (New) The method of claim 45, wherein the second plane is the second cardinal plane.

54. (New) The method of claim 45, wherein determining the position of the first, second, third and fourth points includes tracking the position of an instrument bearing a marker detectable by a tracking system.

55. (New) The method of claim 45, further comprising the step of registering the position of the pelvis with a virtual model of the pelvis or an image of the pelvis.

56. (New) The method of claim 45, further comprising the step of attaching a marker detectable by a tracking system to determine the position of the marker to a specified anatomical feature of the pelvis.

57. (New) The method of claim 45, wherein determining the position of the first, second, third and fourth points includes applying an end of an instrument to respective anatomical features of the pelvis.

58. (New) The method of claim 57, wherein determining the position of the first, second, third and fourth points includes subcutaneously applying the end of the instrument.

59. (New) The method of claim 57, wherein determining the position of the first, second, third and fourth points includes percutaneously applying the end of the instrument.

60. (New) The method of claim 59, further comprising the step of palpating the skin of the subject to identify the anatomical features before applying the end of the instrument to the skin above the anatomical feature.

61. (New) The method of claim 45, wherein determining the position of the third cardinal plane comprises calculating the position of the third cardinal plane.

62. (New) The method of claim 45, wherein the first point is the spina iliaca anterior superior and the second point is the symphysis pubis.

63. (New) The method of claim 45, wherein the third point is the spinous process of the S1 vertebra and the fourth point is the spinous process of the S2 vertebra.

64. (New) The method of claim 46, wherein the point common to the first and second planes is the symphysis pubis.

65. (New) A system for registering the pelvis of a patient in a lateral position, comprising:

an instrument for locating a plurality of anatomical points of, or adjacent, the pelvis and wherein the position of the instrument is detectable by a tracking system;

a tracking system operable to generate an instrument position signal indicative of the position of the instrument; and

a computer system in communication with the tracking system to receive the instrument position signal, and wherein the computer system includes a data processing device in communication with a memory, the memory storing instructions causing the data processing device to:

determine the position of a first pelvic plane from a first set of pelvic part positions derived from corresponding instrument positions;

determine the position of a second pelvic plane from a second set of pelvic part positions derived from corresponding instrument positions; and

determine the position of a third pelvic plane, wherein the first, second and third pelvic planes are mutually perpendicular.

66. (New) The system of claim 65, wherein the instrument has a marker detectable by the tracking system.

67. (New) The system of claim 66, wherein the marker is wirelessly detectable by the tracking system.

68. (New) The system of claim 65, wherein the instrument position signal comprises data items representative of the position of the instrument.

69. (New) The system of claim 65, wherein the tracking system and computer system are integrated.

70. (New) The system of claim 65, wherein the first set of pelvic positions includes at least three pelvic positions in a first plane parallel to the first pelvic plane.

71. (New) The system of claim 70, wherein the second set of pelvic positions includes at least two pelvic positions in a second plane parallel to the second pelvic plane.

72. (New) The system of claim 71, wherein a one of the pelvic positions in the first set of pelvic positions and the second set of pelvic positions is common.

73. (New) The system of claim 65, wherein the first set of pelvic part positions are in the first pelvic plane.

74. (New) The system of claim 65, wherein the second set of pelvic part positions are in the second pelvic plane.

75. (New) The system of claim 65, wherein the first set of pelvic part positions includes the positions of the spina iliaca anterior superior and the symphysis pubis.

76. (New) The system of claim 65, wherein the second set of pelvic part positions includes the positions of the spinous

process of the S1 vertebra and the spinous process of the S2 vertebra.

77. (New) A method for registering a pelvis of a subject in a lateral position, comprising:

calculating the position of a first cardinal plane of the pelvis using the position of at least a first point and a second point located in a first plane parallel to the first cardinal plane;

calculating the position of a second cardinal plane of the pelvis using the position of at least a third point and a fourth point located in a second plane parallel to the second cardinal plane; and

calculating the position of a third cardinal plane of the pelvis, wherein the first, second and third cardinal planes are mutually perpendicular.

78. (New) The method of claim 77, wherein the first plane is coincidental with the first cardinal plane and/or the second plane is coincidental with the second cardinal plane.

79. (New) The method of claim 77, wherein the first cardinal plane is the frontal pelvic plane and/or the second plane is the sagittal pelvic plane and/or the third plane is the transverse pelvic plane.

80. (New) The method of any of claims 77, wherein calculating the position of the second cardinal plane also uses a one of the first or second points.

81. (New) The method of claim 80, wherein the first or second point is the symphysis pubis.

82. (New) A method for registering the pelvis of a subject in a lateral position, the method comprising:

detecting the position of an instrument at a first, second, third and fourth position;

determining the position of a first, second, third and fourth anatomical feature of, or adjacent, the pelvis based on the respective detected positions; and

calculating the position of first, second and third mutually orthogonal cardinal planes of the pelvis.

83. (New) The method of claim 82, wherein the detecting the position of the instrument includes wirelessly tracking the instrument.

84. (New) The method of claim 83, wherein three of the first, second, third and fourth anatomical features lie in the same plane.

85. (New) The method of any of claim 84, wherein calculating the position further comprises using a one of the first, second, third and fourth anatomical features which does not lie in the same plane and the geometric constraint that a two of the cardinal planes are perpendicular.